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10/645,952	08/22/2003	Xiao-Fan Feng	SLA1222	8258

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EXAMINER	
KAU, STEVEN Y	

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/645,952	FENG ET AL.	
	Examiner	Art Unit	
	STEVEN KAU	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-18 and 20-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20* is/are allowed.

6)☒ Claim(s) *14-18 and 21-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This is in response to Applicant(s) arguments filed on 09/02/2010.

- The following is the current status of claims:

  Claims 1-13 and 19, have been canceled and new claims 24 and 25 have been added. Thus, Claims 14-18 and 20-25 remain pending for examination, with claims 14, 20, 21, 22, 23, 24, and 25 being independent. Claims 14-18 and 21-23 have been amended.

- Response to Remarks/Arguments:

  (1) Applicant's arguments regarding telephone interview summary on September 1, 2010, page 10, Remarks, have been fully considered. Examiner replies to this argument in the following section.

  (2) Applicant's arguments regarding claims 22 and 23 rejection under 35 U.S.C. §101 have been fully considered and persuasive. In view of the recitation of applicant claim amendments, "non-transitory storage medium", which excludes those transitory embodiments in the claim, thus, 35 U.S.C. §101 rejections are overcome and the rejections are withdrawn from the record. Claim 21 was not rejected under 35 U.S.C. §101 in the previous Action. Thus, the examiner has no comments on the arguments presented by the applicant on pages 10-11, Remarks.

  (3) Applicant's arguments with respect to the rejection of claims 14-18, and 21-23 under 35 U.S.C. 102(e) and 35 U.S.C. 103(a) have been fully

considered but are not persuasive for the following reasons, see sections I (response to Remarks/Arguments) and II (repeated rejections).

With respect to the arguments for telephone interview on September 1, 2010 - Applicant argues: "Applicant argued that Daly does not teach the creation of a dither pattern tile with pixel values that are dispersed from pixel values in a dither pattern tile of another color channel. The examiner did not point out to Applicant's attorney where Daly teaches this element, but did not agree with Applicant's argument either. Applicant and Examiner did not arrive at any conclusions and no particular amendment was approved. Accordingly, Applicant files this amendment to further prosecution of the application. Applicant requests that the examiner explicitly point out where Daly teaches the element of creation of a dither pattern tile with pixel values that are dispersed from pixel values in a dither pattern tile of another color channel, which is an element in all of the current claims.", Page 10, Remarks.

Examiner replies: the examiner revisited the interview summary in record, dated September 1, 2010, which states that "*Attorney presented the invention. Claim rejections and prior art were discussed. The examiner explained the claim rejection rational. Applicant expressed to reconstruct the claims. The examiner stated that further consideration and search are required upon receiving the written amendment. No agreement is reached.*" Nevertheless, the examiner would like to point out to the applicant that the claim rejection was explained and outputted out each feature taught by prior art in figures, paragraphs, or columns and lines in the previous Action. For example,

"Regarding claim 14 (claim submitted on 3/17/2010).

Daly discloses a method for creating a spatio-temporal array of dither patterns (**i.e. creating pseudo-random noise, or dither pattern from human visual system and quantization, Par. 26 and Fig. 8, Para. 35**), said method comprising:

a. establishing a spatio-temporal array of dither pattern tiles comprising a plurality of temporal framesets (**Fig. 8 discloses spatio-temporal array of dither pattern tiles comprising multiple temporal framesets, Para. 58**), each of said framesets comprising a plurality of pattern tiles for each of a plurality of color channels (**Figs. 4 and 5, discloses color channels for said framesets, Paras. 40-54**); and b. designating pixel values in said dither pattern tiles wherein subsequently-designated pixel values (**e.g. such frames 0-n in Frameset P each designating pixel values, Figs. 5 and 8**), in a first of said color channels, are spatially dispersed from previously-designated pixel values in the same dither pattern tile and said subsequently-designated pixel values are spatially dispersed from pixel values in dither pattern tiles in another of said color channels (**referring to Figs. 4 and 5, embodiments disclose image data including color components, i.e. RGB color component for spatiotemporal dithering process, thus, pixel value, i.e. gray levels, must be designated for each color component as well as dither pattern tiles with RGB color channel when noise profile is combined, because dither patterns are repeated continuously across the image, either horizontally or vertically, and the final noise profile is combined with color channels image data, Figs. 5 and 8, Paras. 55-63**), wherein said designating is performed by a computing device comprising

a processor and a memory (**referring to Figs. 4 & 5, a display system for spatiotemporal dithering includes multiple process modules, i.e. image data is divided into RGB channels, and memory 30 for storing tiles; that is, there must be a processor, or a CPU controlling the process for performing spatiotemporal dithering; Pars. 54 & 55**)."

In addition, the examiner would like to reference the applicant to Figures 4 and 5, of Daly, which discloses three color channels, e.g. Red, Green and Blue, each has a quantizer for dithering process, and tiles per frame and spatio-temporal noise, which causes spatio-temporal dithering are added to each color channel, or pixels of input image data to create a quantized patterns, or dither pattern tiles, to produce dithered outputs, e.g. RGB outputs to the display (Abstract and Pars. [0053] to [0058], and so on). Therefore, the feature in the arguments, recites, "the creation of a dither pattern tile with pixel values that are dispersed from pixel values in a dither pattern tile of another color channel" is obviously taught and suggested by Daly.

With respect to the arguments of claims 14-18 and 22-23 rejections under 35 USC 102(e) and 103(a) –

Applicant argues: prior art Daly does not teach features in the claim.

Examiner replies: the examiner respectfully disagrees with the above arguments. The amended claims are found not distinguishable from prior arts in record and the claims are therefore rejected with the same ground as the previous Action. The examiner

would like to reference the applicant to the claims rejection section below for the explanation on how the prior art references read on the amended claims.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claim 14, limitations recite, "a. establishing a spatio-temporal array of dither pattern tiles comprising a first temporal framesets, wherein said first temporal frameset comprises **a first dither pattern tile** in **a first color channel** and **a second dither pattern tile** in **a second color channel**; and b. designating pixel values in **said first dither pattern tiles** wherein said first pixel values, are spatially dispersed from other pixel values in **said first dither pattern tile** and said first pixel values are spatially dispersed from second pixel values in **said second dither pattern tiles** in **said second color channels**, wherein said designating is performed by a computing device comprising a processor and a memory.", (emphasis added by the examiner). The underlined phrases indicate the disagreements of the claim feature defined in the claim, which applicant renders failing to particularly point out

and distinctly claiming the subject matter. In light of the specification, e.g. Figure 4, the examiner will interpret the “said second color channels" as a singular channel.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 14, 15, 18, and 21-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Daly (US 2003/0164961).

Regarding claims 14, 22 and 23.

Daly discloses a method for creating a spatio-temporal array of dither patterns (**i.e. creating pseudo-random noise, or dither pattern from human visual system and quantization, Par. 26, Fig. 8, Para. 35**), said method comprising:

a. establishing a spatio-temporal array of dither pattern tiles comprising a first temporal framesets (**spatio-temporal array is a 3D array, e.g., pixels in vertical and horizontal spatial and time, which is frames in temporal dimension as disclosed in Figs. 7 and 8; e.g. starting with a 3D image array without adding noise, par. [0051], then adding or dispersing spatio-temporal noise, which causes spatio-temporal dithering, Abstract, and Par. [0054], Figs. 4 and 5**), wherein said first

temporal frameset comprises a first dither pattern tile in a first color channel and a second dither pattern tile in a second color channel (**referring to Figs. 4, and 5, different color channels, e.g., Red, Green and Blue each input image data with added tiles per frame, spatio-temporal noise and quantized by the quantizer for each color component, or in each color channel, e.g. first color channel, second color channel, etc., and the process repeats itself for different framesets, Par. [0058]**); and

b. designating pixel values in said first dither pattern tiles wherein said first pixel values, are spatially dispersed from other pixel values in said first dither pattern tile (**as discussed above, 3D image array is formed with dimensions of pixels in vertical and horizontal spatial and with frames in temporal dimension, Par. [0049]; now referring to Figs. 4 and 5, tiles of frames and spatio-temporal noise, which causes spatio-temporal dithering are added to input image data in each color channel for quantizing; therefore, pixel values of input image data are spatially dispersed from the spatio-temporal noise data, which is stored in the 3D array, Par. [0055]**) and said first pixel values are spatially dispersed from second pixel values in said second dither pattern tiles in said second color channels (**the spatio-temporal dithering processing is the same for Red color channels and the second color channels, and the processes of Figs. 4 and 5 are wrapping around**), wherein said designating is performed by a computing device comprising a processor and a memory (**referring to Figs. 4 & 5, a display system for spatiotemporal dithering includes multiple process modules, i.e. image data is divided into RGB channels, and**

memory 30 for storing tiles; that is, there must be a processor, or a CPU controlling the process for performing such spatiotemporal dithering; Pars. 54 & 55).

Regarding claim 15, in accordance with claim 14.

Daly' 961 discloses that said spatio-temporal array also comprises a second temporal frameset comprising third pixel values and said first pixel values are also spatially dispersed from said third pixel values in said second temporal frameset (**dither patterns are repeated continuously across the image, either horizontally or vertically, thus subsequently-designated pixel values are also dispersed from previously-designated pixel values in other temporal frames, Figs. 5 and 8, Paras. 55-63**).

Regarding claim 18, in accordance with claim 15.

Daly' 961 discloses that additional temporal framesets and a last temporal frameset wherein pixel values designated in a last temporal frame are considered temporally adjacent to a first temporal frameset wherein said pixel values in said first temporal frame have a dispersion effect on pixels designated in said last frameset (**Figs. 4 and 5 are wraparound processes, that is, the last frameset is adjacent to the first frameset**; **in addition, each spatio-temporal noise values and tiles per frame are added to the input image data and processed sequentially; therefore, the dispersion effects influence the pixel frameset right next to the previous frameset, Paras. 55-63**).

Regarding claim 21.

Daly discloses a system for creating a spatio-temporal array of dither patterns, said system (**System of Figs. 4 and 5**) comprising:

a. a spatio-temporal array of dither pattern tiles comprising a plurality of temporal framesets (**Fig. 8 discloses spatio-temporal array of dither pattern tiles comprising multiple temporal framesets, Para. 58**), each of said framesets comprising a plurality of pattern tiles for each of a plurality of color channels, wherein said array is stored in a memory (**Figs. 4 and 5, discloses color channels for said framesets, Paras. 55 and 58**); and

b. a designator (**e.g. visual system of Figs 4-5**) for designating pixel values in said dither pattern tiles wherein said designator designates subsequently-designated pixel values (**referring to Figs. 4 and 5, embodiments disclose image data including color components, i.e. RGB color component for spatiotemporal dithering process, thus, pixel value, i.e. gray levels, must be designated for each color component as well as dither pattern tiles with RGB color channel when noise profile is combined, because dither patterns are repeated continuously across the image, either horizontally or vertically, and the final noise profile is combined with color channels image data, Figs. 5 and 8, Paras. 55-63**), in a first dither pattern tile in a first of said color channels (**referring to Fig. 5, spatiotemporal noise 24a-24c, crop tile size 28a-28c and tiles per frame in memory 30a-30c are mapped as 1d, and then added to color channels 10a-10c by individually; thus, one can say, i.e. tiles per frames in memory 30a, is the first dither pattern tile and color channel 10a is the first color channel, and so on**), wherein said subsequently-

designated pixel values are spatially dispersed from previously-designated pixel values in said first dither pattern tile (**referring to Figs. 4 and 5, the visual system noise for spatiotemporal dithering, i.e. "The dither array is smaller than the image array in order to save memory costs, so it must be tiled both spatially and temporally across the image sequence. The preferred way it to step through the frames of the dither array spatially across the image in a repeating manner, either horizontally and vertically, or horizontally, with increment steps at the start-of-row repeat positions or some other index position"; that is, because of the repeating manner, i.e. Steps 24, 28 and 30, tiles per frames memory is added back to color channel and therefore, the designated pixel value are spatially dispersed from previously-designated pixel value, Par. [0058]**) and wherein said subsequently-designated pixel values are also dispersed from previously-designated pixel values in dither pattern tiles in another of said color channels, and wherein said designator comprises a processor linked to said memory (**referring to Figs. 4 & 5, a display system for spatiotemporal dithering includes multiple process modules, i.e. image data is divided into RGB channels, and memory 30 for storing tiles; that is, there must be a processor, or a CPU controlling or linking to the memory for performing such spatiotemporal dithering; Pars. 54 & 55**).

Regarding claims 24 and 25.

Daly discloses a method for creating a spatio-temporal array of dither patterns, said method comprising:

a. establishing a first temporal frameset and a second temporal frameset (**referring to**

Fig. 8, frames P, P+1 and son on are framesets established, Par. 58),

wherein said framesets comprise dither pattern tiles for each of a first and

a second color channel (**referring to Figs. 4 and 5, image of framesets is divided in to color channels, RGB channels and included are wraparound spatio-temporal dithering processes comprising spatio-temporal noise causing spatio-temporal dithering for tiles in color channels**);

b. designating pixel values at locations in a first dither pattern tile of a first color channel of said first temporal frameset (**spatio-temporal array is a 3D array, e.g., pixels in vertical and horizontal spatial and time, which is frames in temporal dimension as disclosed in Figs. 7 and 8; e.g. starting with a 3D image array without adding noise, par. [0051], then adding or dispersing spatio-temporal noise, which causes spatio-temporal dithering, Abstract, and Par. [0054], and tiles are formed with dither patterns, Par. [0055], and Figs. 4 and 5**), wherein said locations are dispersed from locations of other pixel values in said first and second color channels in said first temporal frameset and said second temporal frameset (**Figs. 4 and 5 are wraparound spatio-temporal dithering processes and "step through the frames of the dither array spatially across the image in a repeating manner, either horizontally and vertically, or horizontally, with increment steps at the start-of-row repeat positions or some other index position. This is shown in frame p, 40, and Frame p+1, 42, of FIG. 8", Par. [0058]**), wherein said designating is performed by a computing device comprising a processor and a memory (**referring to Figs. 4 & 5, a display system for spatiotemporal dithering includes multiple process modules, i.e.**

image data is divided into RGB channels, and memory 30 for storing tiles; that is, there must be a processor, or a CPU controlling the process for performing such spatiotemporal dithering; Pars. 54 & 55);

c. designating pixel values at locations in a second dither pattern tile of a second color channel of said first temporal frameset (**as discussed above, position starts with start-of-row and progressively either horizontally and vertically, or horizontally; now referring to Figs. 4 and 5, wraparound spatio-temporal dithering processes, thus, frames, or framesets are processed in sequential order in color channels, Par. [0055]**), wherein said locations are dispersed from locations of other pixel values in said first and second color channels in said first temporal frameset and said second temporal frameset (**spatio-temporal noise is stored in 3D array and in the wraparound spatio-temporal processes, pixel values in rows and columns are processed for series of framesets in color channels, Figs. 4, 5 and 8, Par. 55 and 58**), wherein said designating is performed by said computing device (**this feature is discussed above**).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 2003/0164961) as applied to claim 15, and in view of Lippel (US 4,758,893).

Regarding claim 16, in accordance with claim 15.

Daly' 961 discloses wherein said dispersion from said third pixel values in said second temporal frameset wherein temporal frames more temporally distant from a said first pixel values have a lower dispersion than closer temporal frames (**referring to Figs. 4 and 5, the wraparound spatio-temporal dithering processes, and therefore, the pixel values in the sequential process are changed for framesets**).

Daly does not explicitly disclose that weighted frameset.

Lippel' 893 discloses weighted frameset (e.g. **Lippel discloses weighted temporal frames for subcycling cinematic dither and therefore, temporal instant of temporal frames can be controlled, col 10, lines 13-24**).

Having a method of Daly' 961 reference and then given the well-established teaching of Lippel' 893 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Daly' 961 reference to include weighted frameset as taught by Lippel' 893 reference since doing so would be able to control priority of color channels in the method for creating a spatio-temporal array of the dither patterns and further the services provided could easily be established for one another with predictable results.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 2003/0164961) as applied to claim 15, and in view of Masuji et al (US 7,110,010).

Regarding claim 17, in accordance with claim 15.

Daly discloses that wherein said dispersion from said second pixel values in said second color channel is weighted wherein said second pixel values in said second color channel have a lower dispersion than said first pixel values in said first color channel (**referring to Figs. 4 and 5, embodiments disclose wraparound spatio-temporal dithering processes, and image data including color components, i.e. RGB color component for spatiotemporal dithering process, thus, pixel value, i.e. gray levels, must be designated for each color component as well as dither pattern tiles with RGB color channel when noise profile is combined, because dither patterns are repeated continuously across the image, either horizontally or vertically, and the final noise profile is combined with color channels image data, Figs. 5 and 8, Paras. 55-63**).

Daly' 961 does not explicitly disclose that pixel value in color channel is weighted.

Masuji' 010 teaches that pixel value in color channel is weighted (**Masuji' 010 discloses that dither coefficient is weighted with color gradation level and dither coefficient is selected for dithering process, col 4, lines 23-39 and col 14, lines 17-33, and Fig. 17**).

Having a method of Daly' 961 reference and then given the well-established teaching of Masuji' 010 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Daly' 961 reference to include "pixel value in color channel is weighted" taught by Masuji' 010

reference since doing so would enhance the method for creating a spatio-temporal array of the dither patterns by selecting different weight level of dither coefficient to optimize dither coefficient patterns and further the services provided could easily be established for one another with predictable results.

Allowable Subject Matter

9. Claim 20 is allowable. The primary reasons for allowance for claim 20 is the inclusion of the limitation of a method for creating a spatio-temporal array of dither patterns such (a). establishing an initial temporal offset frameset (ITOF), wherein said ITOF comprises a pre-determined pattern for each of a plurality of color channels; (b). establishing a first temporal frameset comprising dither pattern tiles for each of a plurality of color channels; (c). designating a first pixel value at a first point in a first dither pattern tile of said first temporal frameset, wherein said first point is dispersed from at least one pixel value in said pre-determined pattern, wherein said designating is performed by a computing device comprising a processor and a memory; (d). designating a second pixel value at a second point in said first dither pattern tile of said first temporal frameset, wherein said second point is placed at a location that is dispersed away from at least one pixel value in said first dither pattern tile, wherein said designating is performed by said computing device, and repeating steps of designating pixel value in said multiple dither pattern tiles until all frames of subsequent temporal framesets have been designated. It is these limitations either alone or combined as

claimed that were taught, found, or suggested by prior part. The closes prior arts in the record are Lippel (US 4,758,893) and Gupta et al (Gupta) (US 6,851,783).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120

and fax number is 571-270-2120. The examiner can normally be reached on Monday to Friday, from 8:30 am -5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/
Examiner, Art Unit 2625
November 13, 2010

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625